



US009638259B2

(12) **United States Patent**
Bredoire et al.

(10) **Patent No.:** **US 9,638,259 B2**
(45) **Date of Patent:** **May 2, 2017**

(54) **PLUG ASSEMBLY, ROLLING BEARING
COMPRISING SUCH PLUG ASSEMBLY AND
MACHINE COMPRISING SUCH ROLLING
BEARING**

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(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.

(21) Appl. No.: **14/864,941**

(22) Filed: **Sep. 25, 2015**

(65) **Prior Publication Data**
US 2016/0091025 A1 Mar. 31, 2016

(30) **Foreign Application Priority Data**
Sep. 29, 2014 (EP) 14306521

(51) **Int. Cl.**
F16C 19/26 (2006.01)
F16C 43/06 (2006.01)
(Continued)

(52) **U.S. Cl.**
CPC **F16C 43/06** (2013.01); **F16C 19/26**
(2013.01); **F16B 37/14** (2013.01); **F16C 19/16**
(2013.01);
(Continued)

(58) **Field of Classification Search**
CPC F16C 43/04; F16C 43/06; F16C 19/26;
F16C 19/16; F16C 2208/36; F16C
2360/31; F16B 37/14
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,148,922 A 9/1964 Roessler, Jr.
3,275,391 A * 9/1966 Blais F16C 19/362
384/447

(Continued)

FOREIGN PATENT DOCUMENTS

DE 19837579 A1 2/2000
EP 0375938 A1 7/1990

(Continued)

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(57) **ABSTRACT**

A plug assembly for use in a rolling bearing comprising at least a first ring, at least one second ring, and at least one row of rolling elements arranged between the rings. The first ring is provided with an opening for inserting rolling elements into a space between raceways or for taking rolling elements out of the space between the raceways for assembly and maintenance. The plug assembly comprises a plug configured to close the opening when the bearing is operating. The plug includes an inner end face facing the rolling elements and an outer end face opposite to the inner end face. The bearing can further comprise a protective cap shielding the outer end face of the plug from a corrosive environment of the bearing.

11 Claims, 2 Drawing Sheets

